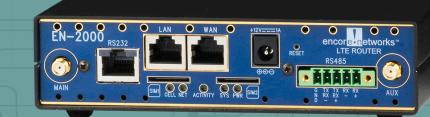


Industrial EN-2000[™] Data Sheet

EN-2000[™] Industrial Grade



EN-2000[™] Industrial Applications

- SCADA
- M2M
- Legacy RTU, PLC & Sensor to Ethernet/LTE
- Video Surveillance
- Industrial Plant Floor Remote
 Monitoring
- Distributed Network

Standard Features

- Supports both wireless and wired transport
- 4G LTE
- CBRS
- License free, VPN, DMNR, GRE, IPsec & Layer 4 Firewall
- Modbus
- Two Ethernet ports, either
 LAN/LAN or WAN/LAN
- Small Footprint, Low Power
 Consumption, DIN Rail Mountable
- Enhanced traffic grooming using QoS
- Data Traffic types can be assigned to specific links, IP addresses
- One RS-232 and One RS-485 interface for legacy equipment

Cloud or On-Premises Management with enCloud™ or enSite™ Enterprise Management Systems



4G LTE INDUSTRIAL BROADBAND ROUTER

The Encore Networks EN-2000[™] Industrial Router (IR) is a high performance low-cost broadband router designed for Ethernet and LTE Cellular networks. Built for the Industrial Internet of Things (IIoT), this compact IP M2M router provides license free IPsec, VPN, Firewall, Ethernet, Legacy Serial and IP interworking. The EN-2000[™] can service the needs of mission critical communications of both complex SCADA applications and simple Machineto-Machine (M2M) applications.

The EN-2000[™] IR supports mission critical communications and control found in harsh environments on the industrial plant floor, electrical grid, water treatment, waste plants, and alternative energy sites. The EN-2000[™] IR can connect directly to Legacy Serial based RTU, PLC and Sensors or newer equipment that is Ethernet based to communicate directly to one or multiple back office SCADA systems. Providing high-availability in both fixed broadband networks connectivity; DSL, cable, MPLS Ethernet or highspeed 4G LTE connection. The EN-2000[™] IR router is ruggedized operating from -20° C to +70° C with a flexible powering option from 9 to 32 VDC or AC power. Native Modbus and other industrial protocols are supported for seamless ease an integration into back office operations.

The EN-2000[™] can also operate as a stand-alone 4G LTE cellular solution to support sub-station, grid infrastructure, remote monitoring points and more. With the high speeds offered by 4G LTE cellular and low latency critical SCADA connectivity can be accomplished without traditional terrestrial connections. This makes the EN-2000[™] an ideal choice for increasing equipment visibility, adding new services, to increasing the industrial intelligence of your network.

Exceptional Features at a Reasonable Price

The EN[™] Series of cellular routers provides powerful features at a value price. The EN-2000[™] is the flagship of this series and offers exceptional value. All the EN[™] Series routers come with a three-year hardware warranty, an intuitive GUI interface, built-in Firewall, VPN support and advanced IP features including DMNR, GRE, and IPsec.

In addition, all of the EN[™] Series routers can be monitored and managed with Encore's cloud hosted Enterprise Management System, enCloud[™], or customer premises server based enSite[™]. Both offer many features that will make managing your entire network of EN[™] Series routers easier, including Cellular data limit enforcement for individual devices and group data plans, included firmware updates, no touch deployment for new hardware, and reseller and customer tiers to assist in delivering managed network services for multiple customers.

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TECHNICAL SPECIFICATIONS

	Broadband Router	
GENERAL FEATURES	Secure VPN router	
	Modem/Cellular IP Pass Through/Bridge Operation	
	QoS enforcement to prioritize critical traffic	
	Stateful inspection layer 4 Firewall, NAT, NAT Port Forward	
SECURITY APPLIANCE FEATURES	HTTPS-SSL	
	SSH (Secure Shell)	
	IPsec with AES 256 and 3DES 4 tunnels max	
	Dead Peer Detection plus NAT Traversal	
	Generic Router Encapsulation GRE (RFC 1701)	
	Internet Key Exchange - IKE V1, V2	
	OpenVPN Chairman chai	
IP TRANSPORT PROTOCOLS	Static routing	
	DHCP client/server	
	IP QoS and traffic prioritization IP fragmentation/reassembly	
	IP routing over VPN; TCP and UDP	
	IPv6 Support	
	Virtual Redundant Routing Protocol (VRRP)	
	Asynchronous PPP	
	DMNR	
	PPPoE	
	AT&T LTE CAT 4 150/50 Mbits – Bands, 2, 4, 5, 17 – UMTS 850/1900	Private LTE 900 MHz Band 8
CELLULAR	T-Mobile; LTE CAT 4 150/50 Mbits – Bands, 4, 12 – UMTS 850/1900	CBRS 3.5 GHz Band 48
	Sprint; LTE CAT 4 150/50 Mbits – Bands 25, 26 and 41 (1900/800/2500) MHz	
	Verizon; LTE CAT 4 150/50 Mbits – Bands 4, 13	
	Support for 2.4 and 5 GHz	
WIFI	Autoselect between 802.11a/b/g/n	
	WEP or WPA-PSK encryption	
	WiFi Access or Client	
PHYSICAL FEATURES	LEDs for cell module, system status, network status, and power	
	LEDs for LAN/WAN and Cellular signal strength indication	
	One 10/100 Mbit/s Ethernet RJ-45 (WAN/LAN) - WAN is factory default	
	One 10/100 Mbit/s Ethernet RJ-45 (LAN)	
	One RS-232	
	One RS-485	
	Reset Switch	
	Two SMA antenna connections for embedded internal cellular radio	
	Two SMA antenna connections for detachable WiFi antennas Two Accessible SIM Slots	
	Power Input	
	Optional DIN Rail Clip	
	enCloud [™] Device Management System - Cloud Based	
MANAGEMENT	enSite™ Device Management System - Customer Premises Server Based	
	GUI Web Management	
	SSH (Secure Shell)	
	SNMPv3 manageability	
	HTTP/HTTPS - web access interface	
	Telnet Syslog	
	Height: 1.6 inches/40 mm	
MECHANICAL	Width: 5.7 inches/145 mm	
	Depth: 4 inches/100 mm	
	Weight: 1 lb. (0.45 kg)	
ENVIRONMENTAL	Operating: -20° C to +70° C	
	Storage: -40° C to +85° C	
	Humidity: 5% to 95%, non-condensing	
STANDARDS COMPLIANCE	RoHS Compliant	
	CE Compliant	
	Class 1/Div 2	
	EMC, FCC Part 15, EN 55011/CISPR II	
	9 to 32 VDC or 100 - 240VAC Autoranging,	
	47-63Hz Power Supply (12V input) Power Consumption - 3.5 watts nominal, 7 watts transmitting	A A A A A A A A A A A A A A A A A A A
	UL/CSA 60950-1, EN 60950-1	
PRODUCT SAFETY	CAN/CSA-C22.2 No. 60950-1-03	America
		Complian
	Specifications subject to change without notice	T N